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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/765,618	01/27/2004	Thomas L. Toth	GEMS8081.198	1362

7590 10/26/2005

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EXAMINER

SONG, HOON K

ART UNIT PAPER NUMBER

2882

DATE MAILED: 10/26/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/765,618	Applicant(s) TOTH ET AL	
	Examiner Hoon Song	Art Unit 2882	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 August 2005.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-32 is/are pending in the application.
- 4a) Of the above claim(s) 9-32 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 2 and 5-8 is/are rejected.
- 7) ☒ Claim(s) 3 and 4 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 January 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>1/17/05; 2/17/04</u> | 6) <input checked="" type="checkbox"/> Other: <u>IDS 2/16/2004</u> |

DETAILED ACTION

Election/Restrictions

Restriction to one of the following inventions is required under 35 U.S.C. 121:

- I. Claims 1-8, drawn to a tomographic system, classified in class 378, subclass 20.
- II. Claims 9-32, drawn to a subject positioning method or software for imaging system, classified in class 600, subclass 415.

The inventions are distinct, each from the other because of the following reasons:

Inventions I and II are related as combination and subcombination. Inventions in this relationship are distinct if it can be shown that (1) the combination as claimed does not require the particulars of the subcombination as claimed for patentability, and (2) that the subcombination has utility by itself or in other combinations (MPEP § 806.05(c)). In the instant case, the combination as claimed does not require the particulars of the subcombination as claimed because the tomographic system does not require the particular subject positioning method or software. The subcombination has separate utility such as subject positing method or software for electromagnetic imaging system.

Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

Because these inventions are distinct for the reasons given above and the search required for Group I is not required for Group II, restriction for examination purposes as indicated is proper.

Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Claims 9-32 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected invention, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in the reply filed on 8/11/2005.

Claim Objections

Claim 7 is objected to because of the following informalities:

Regarding claim 7 at line 1, "the attenuation profile" should read --the desired attenuation profile--.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-2 and 5 are rejected under 35 U.S.C. 102(b) as being anticipated by Mun et al. (US 6456684B1).

Regarding claim 1, Mun teaches a tomographic system comprising:
a rotatable gantry (9) having a bore centrally disposed therein;
a table (24) movable within the bore and configured to position a subject for tomographic data acquisition within the bore;
a high frequency electromagnetic energy projection source positioned within the rotatable gantry (9) and configured to project high frequency electromagnetic energy toward the subject;
a detector array disposed within the rotatable gantry and configured to detect high frequency electromagnetic energy projected by the projection source and impinged by the subject (figure 1); and
at least one sensor (26) to provide subject position feedback.

Regarding claim 2, Mun teaches at least one sensor includes at least one of a laser sensor (column 4 line 15).

Regarding claim 5, Mun teaches the computer is further programmed to determine an elevational offset of the subject from the table (figure 1).

Regarding claim 8, Mun teaches the position feedback includes subject-contour feedback (figure 1).

Claims 1-2 and 8 are rejected under 35 U.S.C. 102(b) as being anticipated by Moore et al. (US 4181858).

Regarding claim 1, Mun teaches a tomographic system comprising:

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a rotatable gantry having a bore centrally disposed therein;

a table movable within the bore and configured to position a subject for tomographic data acquisition within the bore;

a high frequency electromagnetic energy projection source positioned within the rotatable gantry and configured to project high frequency electromagnetic energy toward the subject;

a detector array disposed within the rotatable gantry and configured to detect high frequency electromagnetic energy projected by the projection source and impinged by the subject (figure 1a); and

at least one sensor (figure 3a) to provide subject position feedback.

Regarding claim 2, Mun teaches at least one sensor includes at least one of a laser sensor (figure 3a).

Regarding claim 8, Mun teaches the position feedback includes subject-contour feedback (figure 2a).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 6-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mun et al. in view of Horiuchi (US 2002/0037067A1).

Regarding claim 6, Mun fails to teach the computer is further programmed to dynamically control attenuation characteristics of a pre-subject attenuation filter such that the attenuation characteristics match a desired attenuation profile.

Horiuchi teaches a computer is programmed to dynamically control attenuation characteristics of a pre-subject attenuation filter such that the attenuation characteristics match a desired attenuation profile (figure 3 and 4).

It would have been obvious to one of ordinary skill in the art at the time of the invention to adapt the CT system of Mun with the pre-subject filter as taught by Horiuchi, since the filter would optimize the patient x-ray dose.

Regarding claim 7, Mun as modified by Horiuchi fails to teach the attenuation profile is determined from the at least one scout scan.

Scout scan is known.

It would have been obvious to one of ordinary skill in the art at the time of the invention to adapt the programming of Horiuchi with the known scout scan, since the scout scan would provide more accurate profile.

Allowable Subject Matter

Claims 3-4 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter:

Regarding claims 3-4, the prior art fails to teach a computer programmed to:

perform at least one scout scan; and associate the subject-position feedback with data derived from the scout scan as claimed in dependent claim 3.

Response to Arguments

Applicant's arguments filed 8/11/2005 have been fully considered but they are not persuasive.

The applicant argues that restriction requirement is not proper. However, the restriction requirement properly establishes the combination/subcombination requirement by showing the two-way distinctness and supports separate classification and field of search is necessary. Thus, the restriction requirement is proper and still maintained.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hoon Song whose telephone number is (571) 272-2494. The examiner can normally be reached on 8:30 AM - 5 PM, Monday - Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Glick can be reached on (571) 272 - 2490. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

HKS

10/24/05
NLS



DAVID V. BRUCE
PRIMARY EXAMINER